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FATHERS AT SEA: CHARACTERISTICS OF NAVY  
FAMILIES VULNERABLE TO THE STRESSES OF SEPARATION

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REPORT NO. 76-21



NAVAL HEALTH RESEARCH CENTER

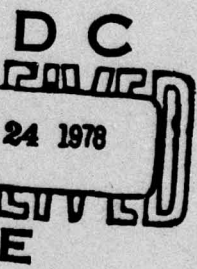
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FATHERS AT SEA:  
Characteristics of Navy Families  
Vulnerable to the Stresses of Separation

Hamilton I. McCubbin, Barbara B. Dahl, Gary R. Lester\*  
and Thomas Hammond\*\*

Family separation is an enigmatic aspect of life in the military. It is a common concern of Army, Air Force and Marine Corps personnel assigned to remote locations and of Naval personnel deployed at sea. All branches of the Armed Forces have examined aspects of family adjustment to separation with the hope of understanding family needs and improving upon existing services to these men and their families (McCubbin, Dahl & Hunter, 1976). Although generally of high quality, investigations conducted to date, such as the recent work of Spjut and Studer (1975) on Air Force families with fathers in remote assignments and the work of the Army and Navy on prolonged separations, (McCubbin, Dahl, Metres, Jr., Hunter & Plag, 1974) have tended to study families at a single point in time, usually during separation, and focus upon the problematic aspects of father absence. Investigations have not examined the problem prospectively and have not given due consideration to the dynamic and adaptive aspects of separations, and thus, have ignored the interrelationship of (1) the family's predeployment preparations; (2) the family's and the deployed father's coping with separation; and (3) the family's adjustment to reunions. Only through examination of these aspects of separation is it possible to identify families vulnerable to the stresses of separation, to determine the dynamics of family adjustment and coping with routine separation, and ultimately, to determine the relationship between family functioning and health and performance of the serviceman. Although these are objectives of our prospective investigation entitled *Squadron Without Wings* conducted by the Naval Health Research Center under the auspices of the Naval Research and Development Command, realistic limitations of data collected to date in this 2-year project have restricted the scope of the present paper.

This paper focuses on some of the initial findings related to the family's predeployment experiences and their relationship to family stresses the aviators and aircrewmembers were concerned about during the initial days of an 8-month deployment.

METHOD

Sample: The families in this study were randomly selected from the total population of pilots, RIOs and aircrew assigned to fighter squadrons and attack squadrons designated for an 8-month deployment aboard a Navy carrier scheduled for departure to the Western Pacific. These squadrons and their families

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represented two types of communities. Families in the fighter squadrons (Officers = 17; Enlisted = 14) were stationed in an "open community" in which they were not dependent upon the military community for their social support. The families in the attack squadrons (Officers = 21; Enlisted = 30) were stationed in a "closed community" in which families were housed in a limited geographic area and were primarily dependent upon the military community for their social support. As a total group the husbands ranged in age from 19 to 44 years with an average of 30.2. Their education level averaged above high school (14.2 years) with a range of between 10 and 18 years. The majority of the men were members of the flight crew or administrative staff (58%), with a high percentage as pilots (31%) or Radio Intercept Officers (11%). The wives ranged in age from 18 to 44 years, with an average of 29.04 years. Like their husbands, they tended to be above high school in education level with an average of 13.54 years. The range between 2 and 17 years of education was greater for the wives than for the husbands. Families had an average of 1.6 children, with a range of 0 to 6 children. The majority, (71%) of the families, had 2 to 4 children. The length of marriages averaged 7.5 years and most families indicated prior experience with deployments, with an average of 2 previous unaccompanied tours. The majority of the wives (62%) were not working; however, a notable percentage were either employed part-time (7%) or full-time (31%).

### Procedure

At the time of this writing, predeployment family interviews, conducted during the two to three month period preceding the ship's scheduled deployment, and the initial interviews with the men at sea had been completed. The protocol used during the pre-deployment phases of the study consisted of structured interviews with husband and wife separately, self-report questionnaires for each spouse, and brief introductory interviews with the children who were also requested to complete an individual standardized questionnaire. These procedures were designed to obtain data on family functioning, attitudes, problems and family preparation for the separation. Approximately six weeks after the predeployment interviews the servicemen were interviewed at sea during the first five days of the cruise. The men were interviewed regarding the number and types of family stresses which were of concern to them in the areas of child rearing, family development, marital and personal adjustment, family decisions, financial stability and stresses unique to deployments (e.g., fear of accidents, etc.).

### Predeployment predictor variables

For the purpose of deriving a composite of critical family and background variables to explain the variability in the serviceman's family stresses aboard ship the following variables were considered: 1. BACKGROUND INFORMATION: Husband's Characteristics - (1) age, (2) years of formal education, (3) rank (officer versus enlisted), (4) military occupational specialty (pilot, RIO, crew, administration), Wife's Characteristics - (5) age, (6) years of formal education, (7) length of time as a member of the military with present husband, (8) number of previous unaccompanied tours, (9) extent of outside employment,



(10) occupational skills, (yes/no), Family Characteristics (11) number of children at home, (12) family development stage at time of deployment, (13) length of the marriage, (14) quality of the marriage -- wife's assessment of, II. WIFE ADJUSTMENT FACTORS: (15) previous difficulty with prior deployments, degree of, (16) feelings about life in the military based on experience, (17) anticipation of hardships as a result of husband's departure (personal, family and child problems), (18) degree of distrust and discomfort with military family support programs, (19) awareness of informal military services (CO wife, wives' club, etc.), (20) awareness of formal military programs (medical counseling etc.) (21) awareness of civilian family programs (legal, medical etc.), (22) awareness of military and civilian programs, (23) perceived helpfulness of military informal programs, (24) helpfulness of military formal programs, (25) helpfulness of civilian programs, and (26) helpfulness of both military and civilian programs, (27) wife's family life stress units - family stresses felt at the time of predeployment, (28) altered living arrangements as a result of husband's deployment, III. HUSBAND ADJUSTMENT FACTORS - (29) husbands life stress units - family stresses felt at time of predeployment, (30) degree of distrust and discomfort with military family support programs, IV. FAMILY/MARITAL ADJUSTMENT FACTORS - (Husband and wife independent assessment of) (31) sensitivity and quality of family communication, (32) family strengths (sex, finances, management etc.), (33) allocation of family roles (extent of husband vs. wife control), V. FAMILY ENVIRONMENTAL FACTORS (as assessed by husband and wife independently) (34) family achievement orientation, (35) family organization, (36) family cohesiveness, (37) family expressiveness, (38) family control, and (39) family conflict, (40) open vs closed community.

### Criterion

The criterion for this investigation was the number of family stresses the men reported to be of concern to them during the initial stages of the ship's deployment.

### Statistical Analysis

In order to establish the degree of relationship between the predictor variables and the criterion, Pearson product-moment correlations were calculated. This procedure permitted the identification and elimination of those variables having little or no relation to the dependent variable. Linear stepwise multiple regression procedures were utilized for the purpose of analyzing the unique contribution of each of the significant predictors in accounting for the variance in the serviceman's stresses of separation.

## RESULTS

Seventeen of the original forty independent variables showed negligible relationships with the criterion of family stresses perceived by the servicemen aboard ship and were eliminated from the regression analysis. The remaining twenty-one variables and significant first order correlations are presented in Table 1.

Table 1: Significant First Order Correlations with Criterion

Predictors		Family Stress Aboard Ship
HUSBAND:	age	-.325**
	education	-.229*
	rank	-.322**
	military specialty-air crew	.311**
	distrust of military family programs	.204*
	#of family stresses before deployment	.556**
WIFE:	positive feelings about military life	-.284**
	age	-.228*
	having occupation	-.264*
	distrust of military family programs	.249*
	#of family stresses before deployment	.348**
	anticipated hardships before deployment	-.383**
	positive feelings about military life	-.284**
	preparation for separation	-.263*
	awareness of family programs: informal military	-.337**
	formal and informal military	-.299**
FAMILY:	civilian and military	-.223*
	strengths	-.377**
	family roles-wife with more responsibilities	-.232*
	family environment-expressiveness	-.298**
	family relocation-moved to new home	.340**

\*p &lt; .05

\*\*p &lt; .01

A regression equation was derived in which the *beta* weights of the predictors were statistically significant at or beyond the .05 level. Three variables met this level: husband's age, ( $r(80) = -.297$ ,  $b = -.1899$ ,  $t = -2.066$ ,  $p < .05$ ), wife's assessment of the family strengths pre-deployment, ( $r(80) = -.209$ ,  $b = -.2091$ ,  $t = -2.218$ ,  $p < .05$ ), and the husband's assessment of family stresses pre-deployment, ( $r(80) = -.438$ ,  $b = .4382$ ,  $t = 4.525$ ,  $p < .001$ ). These variables yielded a multiple correlation of .62, ( $F(3,78) = 16.224$ ,  $p < .001$ ) and accounted for 38 percent of the variance. Hence, the combination of these three variables was significantly greater than any of the variables taken independently.

#### DISCUSSION AND CONCLUSION

The findings indicate that predeployment factors are important for understanding the serviceman's perception of family stresses while at sea. Specifically, seven key factors emerge: (1) family and individual background variables; (2) husband's and wife's attitudes towards life in the military and distrust of family programs; (3) intra-family factors such as expressiveness and strengths; (4) wife's awareness of both informal and formal family support programs; (5) additional family stresses, specifically family relocations in addition to husband's deployments; (6) strength of wife's role in the family, and (7) family preparation for separation.

In the final analysis, only three variables remained: husband's age, husband's stresses before deployment, and wife's assessment of family strengths. The findings indicated that the younger the man, the greater his perception of family stresses even during the early stages of deployment. As might be expected, it appears that the younger man's family is less mature and less secure



in the military setting, having had less exposure to the demands of military life, as well as the advantages of the military community. Shorter marriages, greater control by the husband of family decisions rather than promoting wife's responsibility, little experience with previous deployments, and distrust of available military and civilian family programs, all of which were significantly related to husband's age, are indicative of this inexperience and insecurity, and would contribute to the serviceman's concern for his family while away from them.

The high correlation between the man's predeployment assessment of family stresses and his assessment during the deployment is not unexpected, yet somewhat distressing since the finding would indicate that stresses noted earlier have not been totally resolved prior to deployment. Family and individual attitudes regarding life in the military appear to be important. For, in fact, men who score high on predeployment stresses also tend to indicate negative attitudes towards life in the military and greater distrust of informal and formal military support afforded families. Families who need help may be more reluctant to seek help in resolving stresses and therefore may be more vulnerable in the long run to the demands of separation. For some men the stressful situation was further complicated by having to relocate their families before the deployment.

The emergence of wife's assessment of family strengths as a predictor is not surprising. Wives who view the family as having fewer strengths, are not only those who indicate weaknesses in family communication and marital problems, but also see themselves as having fewer personal resources, specifically less education and fewer employable skills. It appears that the wife's subordinate role in the family was a contributing factor to her devaluation of family strengths.

The final prediction equation consisting of husband's age, husband's stresses before the deployment, and wife's assessment of family strengths indicate that family vulnerability to stress may possibly be determined even before the serviceman's departure. Importantly, the data indicate the value of pre-deployment programs for families in promoting family preparation for separation, in orienting them to services, decreasing their apprehensions about such programs, and increasing the probability families would seek assistance if needed. Certainly, the concept of family vulnerability to stress warrants careful study and validation within this investigation. Subject to the constraints of a single sample, without cross-validation, evidence was provided for the importance and validity of our prospective approach to the study of family separation. In addition, the role of family research in the military in the identification of families vulnerable to stress and in determining how this may affect the man at sea was substantiated.

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) predeployment      adjustment separation      preparations family stresses      family strengths deployment			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The paper focuses on some initial findings related to the predeployment experiences of 82 officer and enlisted families whose military members were assigned to squadrons designated for an 8-month deployment aboard a Navy carrier scheduled for departure to the Western Pacific. An attempt was made to identify the best combination of factors which may be used to explain family vulnerability to stress during separation. Five sets of data were considered in the development of the regression equation: (1) background →			

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characteristics of the husband and wife; (2) wife adjustment factors; (2) husband adjustment factors; (4) family and marital adjustment factors; and (5) family environmental factors. The criterion, family life stress perceived by the husband aboard ship, was designed to measure the degree of family stresses the serviceman carried with him in the initial stages of the deployment. Linear multiple regression procedures indicated that the three variables of husband's age, husband's assessment of the family stresses before deployment, and the wife's predeployment assessment of family strengths yielded a multiple correlation of .62 and accounted for 38 percent of the variance. Data indicate the value of predeployment programs for families in promoting family preparation for separation, in orienting them to services, decreasing their apprehensions about such programs, and increasing the probability families would seek assistance if needed.

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